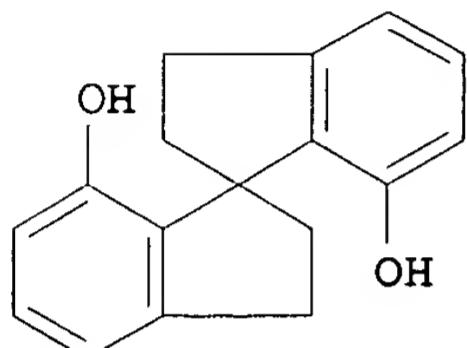


AN 1999:168825 CAPLUS
DN 130:296490
ED Entered STN: 16 Mar 1999
TI 1,1'-Spirobiindan-7,7'-diol: a novel, C₂-symmetric chiral ligand
AU Birman, Vladimir B.; Rheingold, Arnold L.; Lam, Kin-Chung
CS Department of Chemistry, The University of Chicago, Chicago, IL, 60637,
USA
SO Tetrahedron: Asymmetry (1999), 10(1), 125-131
CODEN: TASYE3; ISSN: 0957-4166
PB Elsevier Science Ltd.
DT Journal
LA English
CC 25-23 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
GI



I

AB The title compound (I) was prepared in six steps from m-anisaldehyde and resolved via its bis-L-menthoxy carboxylate.
ST spirobiindandiol prepn resoln
IT Resolution (separation)
 (of 1,1'-spirobiindan-7,7'-diol via its bis-L-menthoxy carboxylate)
IT 591-31-1, m-Anisaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation with acetone)
IT 67-64-1, Acetone, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation with m-anisaldehyde)
IT 223137-67-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and bromination of)
IT 223259-61-8P 223259-91-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and conversion to diol)
IT 223137-76-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and debromination of)
IT 223137-81-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and demethylation of)
IT 116836-15-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and hydrogenation of)
IT 223137-87-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and resolution of)
IT 223137-71-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(preparation and spirocyclization of)

IT 223259-62-9P 223259-63-0P

RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Baker, W; J Chem Soc 1934, P1678 CAPLUS
- (2) Brewster, J; J Am Chem Soc 1973, V95, P1217 CAPLUS
- (3) Chan, A; J Am Chem Soc 1997, V119, P9570 CAPLUS
- (4) Conard, C; Org Synth, Coll VII, P167
- (5) Cram, D; J Am Chem Soc 1954, V76, P2753 CAPLUS
- (6) Eliel, E; Stereochemistry of Organic Compounds 1994, P1138
- (7) Gong, B; J Org Chem 1991, V56, P423 CAPLUS
- (8) Grubbs, R; Tetrahedron Lett 1977, P1879 CAPLUS
- (9) Hagishita, S; Bull Chem Soc Jpn 1971, V44, P496 CAPLUS
- (10) Hardeggar, E; J Am Chem Soc 1959, V81, P2729
- (11) Hill, R; J Am Chem Soc 1973, V95, P1229 CAPLUS
- (12) Hoeve, W; J Org Chem 1980, V45, P2930
- (13) Kazlauskas, R; J Am Chem Soc 1989, V111, P4953 CAPLUS
- (14) Miyashita, A; Tetrahedron 1984, V40, P1245 CAPLUS
- (15) Prelog, V; Helv Chim Acta 1983, V66, P2274 CAPLUS
- (16) Rheingold, A; University of Delaware
- (17) Rosini, C; Synthesis 1992, P503 CAPLUS
- (18) Srivastava, N; J Chem Soc, Chem Commun 1992, P493 CAPLUS
- (19) Tanaka, T; Heterocycles 1987, V25, P463 CAPLUS
- (20) Whitesell, J; Chem Rev 1989, V89, P1581 CAPLUS

IT 223259-61-8P 223259-91-4P

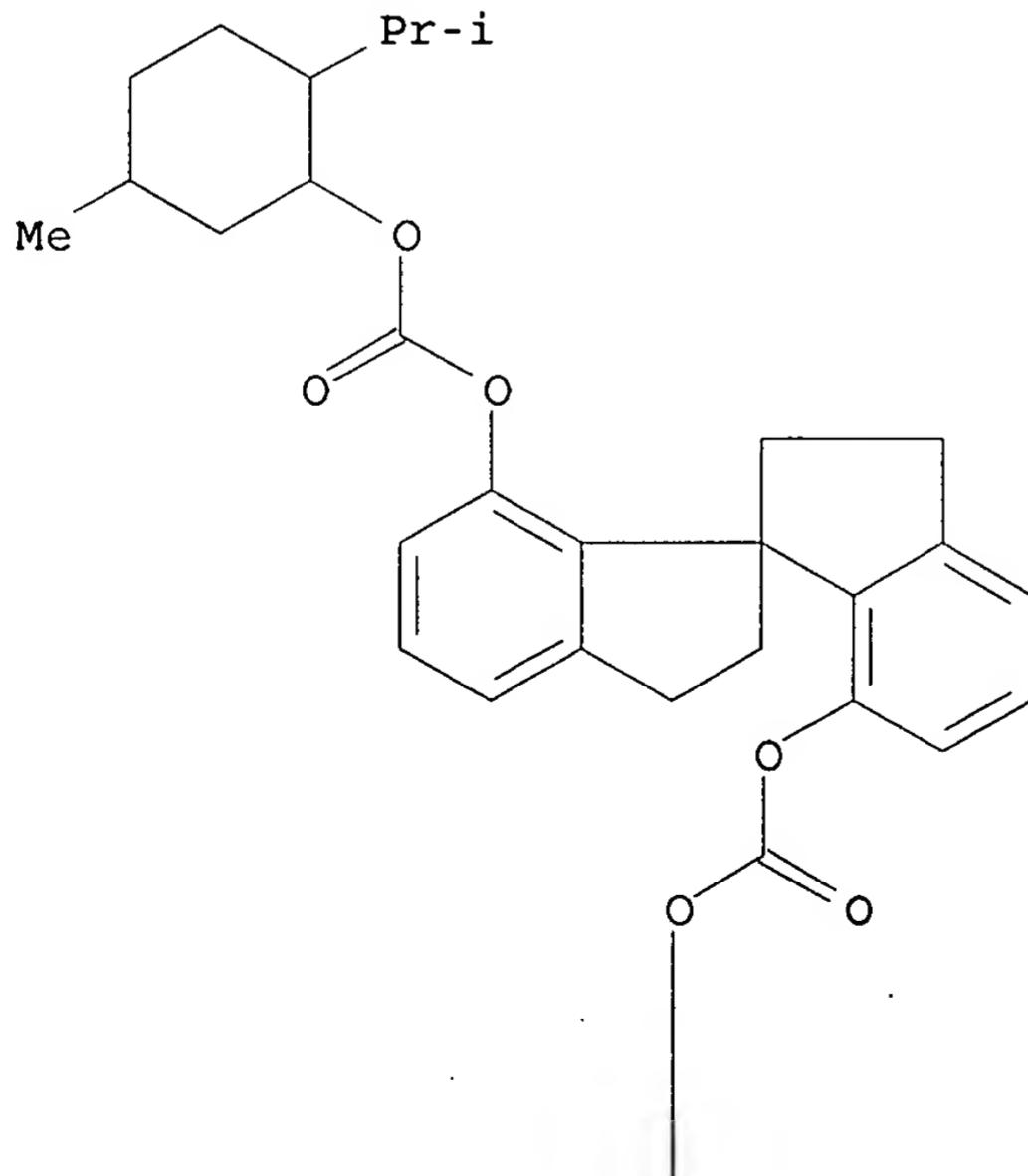
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and conversion to diol)

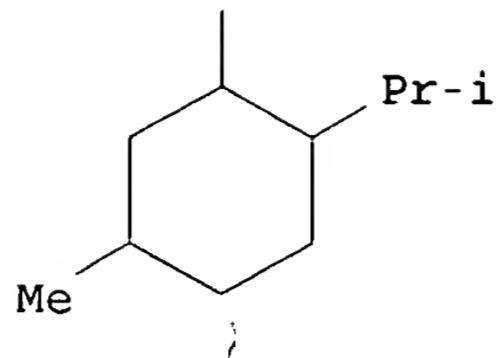
RN 223259-61-8 CAPLUS

CN Carbonic acid, (1R)-2,2',3,3'-tetrahydro-1,1'-spirobi[1H-indene]-7,7'-diyl bis[(1R,2S,5R)-5-methyl-2-(1-methylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



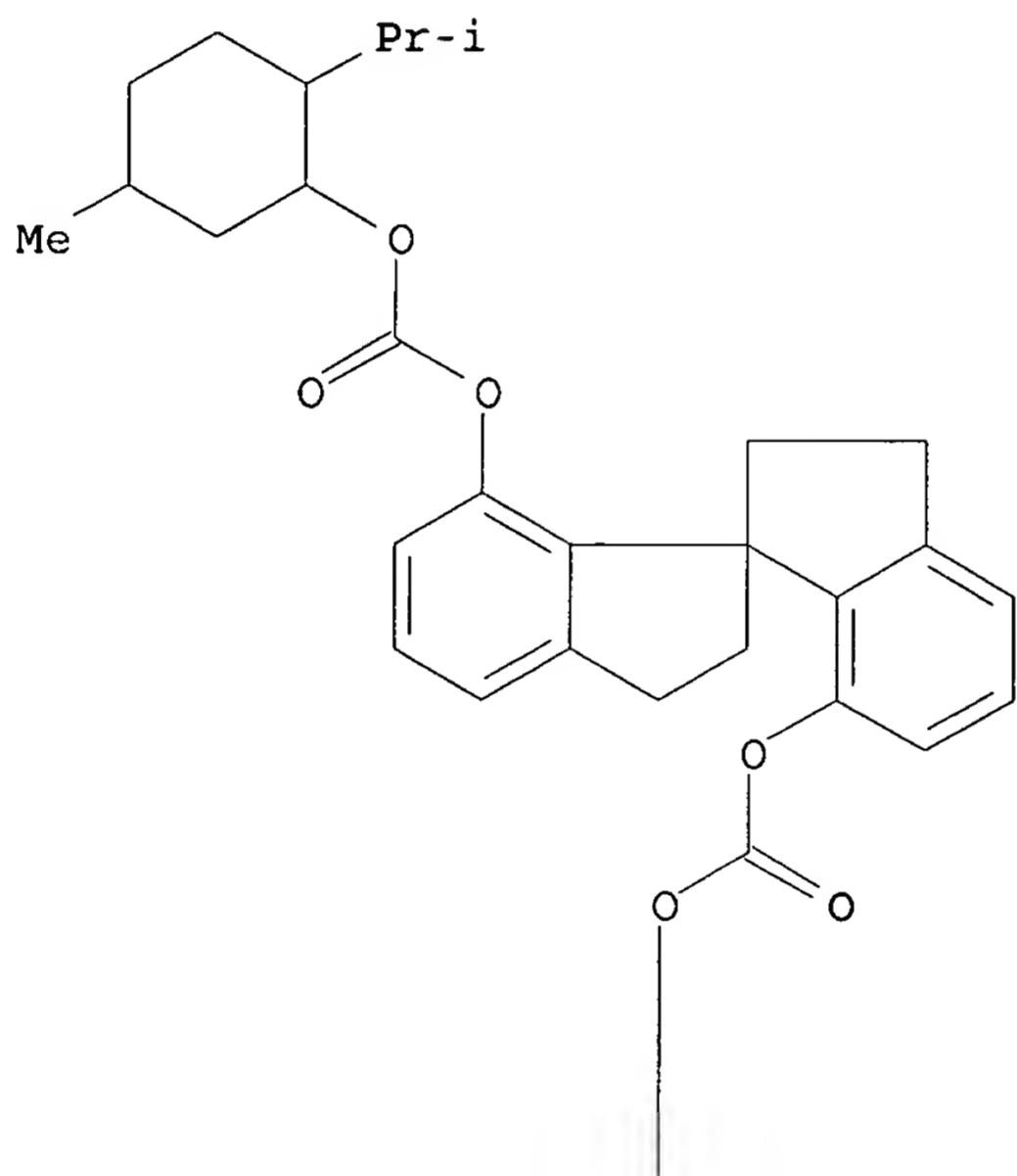
PAGE 2-A



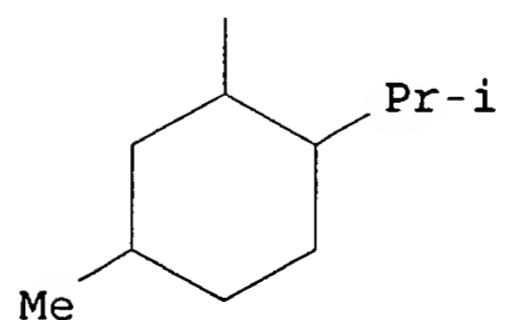
RN 223259-91-4 CAPLUS

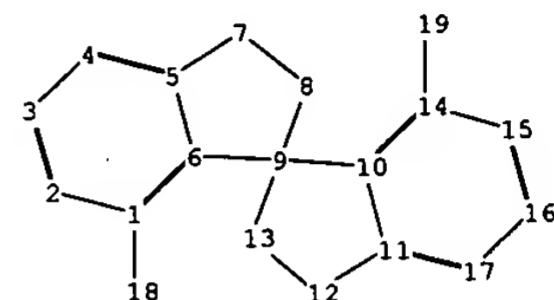
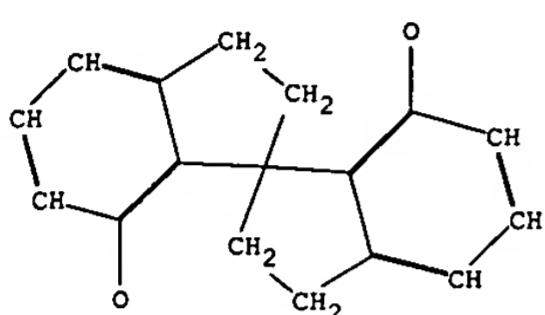
CN Carbonic acid, (1S)-2,2',3,3'-tetrahydro-1,1'-spirobi[1H-indene]-7,7'-diyl bis[(1R,2S,5R)-5-methyl-2-(1-methylethyl)cyclohexyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



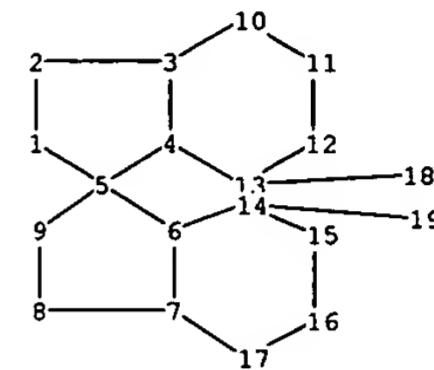
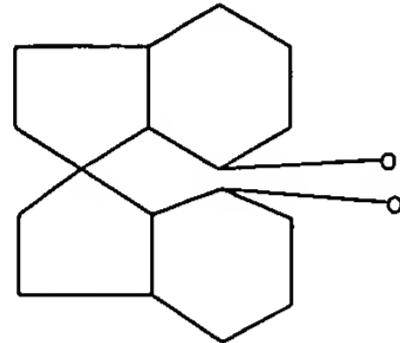


```

chain nodes :
 18 19
ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
chain bonds :
 1-18 14-19
ring bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 9-10 9-13 10-11 10-14
 11-12 11-17 12-13 14-15 15-16 16-17
exact/norm bonds :
 1-18 5-7 6-9 7-8 8-9 9-10 9-13 11-12 12-13 14-19
normalized bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-14 11-17 14-15 15-16 16-17

Match level :
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom
18:CLASS 19:CLASS

```



chain nodes :

18 19

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

chain bonds :

13-18 14-19

ring bonds :

1-2 1-5 2-3 3-4 3-10 4-5 4-13 5-6 5-9 6-7 6-14 7-8 7-17 8-9
10-11 11-12 12-13 14-15 15-16 16-17

exact/norm bonds :

1-2 1-5 2-3 3-4 3-10 4-5 4-13 5-6 5-9 6-7 6-14 7-8 7-17 8-9
10-11 11-12 12-13 13-18 14-15 14-19 15-16 16-17

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom
18:CLASS 19:CLASS